

WHAT IS CLAIMED IS:

1. An information processing apparatus for forming print data to be transmitted to a printing apparatus, comprising:

5           an intermediate data converter for converting data formed by an application to be printed into data in an intermediate code format and temporarily preserving the intermediate code format data as one print job in a memory;

10           a job composer for forming one composed job by composing a plurality of print jobs preserved by the intermediate data converter; and

            a preview display controller for obtaining layout information from the intermediate code format data  
15           preserved by the intermediate data converter and controlling display of a preview of the composed job on the basis of the layout information.

2. An apparatus according to claim 1, further  
20           comprising a setting editor for displaying a user interface to edit a print setting of the preserved intermediate code format data and temporarily preserving the print setting edited by said user interface in association with the intermediate code  
25           format data,

            wherein the layout information is included in said print setting.

3. An apparatus according to claim 2, wherein said user interface can edit the print setting for the composed job.

5        4. An apparatus according to claim 3, wherein said print setting has temporarily been preserved on a print job unit basis and, in case of the composed job, a file for said print setting is newly generated for the composed job.

10

5. An apparatus according to claim 1, wherein said layout information includes a layout process in said information processing apparatus and a layout process in said printing apparatus.

15

6. An apparatus according to claim 1, further comprising a print data forming unit for forming the print data to be transmitted to said printing apparatus on the basis of intermediate data format data preserved by said intermediate data converter.

20

7. An apparatus according to claim 6, further comprising:

25        a draw command forming unit for converting the intermediate data format data preserved by said intermediate data converter into a draw command which can be interpreted by a drawing unit of an OS and

outputting; and

a print command allocating unit for sending a  
print command received from the application through the  
drawing unit of the OS to a spooler and sending the  
5 print command received from said draw command forming  
unit through the drawing unit of the OS to said print  
data forming unit.

8. An apparatus according to claim 7, wherein the  
10 draw command is a GDI function, the print command is a  
DDI function, and the print data is a printer language.

9. An information processing method of forming  
print data to be transmitted to a printing apparatus,  
15 comprising:

an intermediate data converting step of converting  
data formed by an application to be printed into data  
in an intermediate code format and temporarily  
preserving the intermediate code format data as one  
20 print job in a memory;

a job composing step of forming one composed job  
by composing a plurality of print jobs preserved in  
said intermediate data converting step; and

a preview display controlling step of obtaining  
25 layout information from the intermediate code format  
data preserved in said intermediate data converting  
step and controlling display of a preview of the

composed job on the basis of the layout information.

10. A method according to claim 9, further  
comprising a setting editing step of displaying a user  
5 interface to edit a print setting of the preserved  
intermediate code format data and temporarily  
preserving the print setting edited by the user  
interface in association with the intermediate code  
format data,

10 wherein the layout information is included in said  
print setting.

11. A method according to claim 10, wherein the  
user interface can edit the print setting for the  
15 composed job.

12. A method according to claim 11, wherein the  
print setting has temporarily been preserved on a print  
job unit basis and, in case of the composed job, a file  
20 for the print setting is newly generated for the  
composed job.

13. A method according to claim 9, wherein the  
layout information includes a layout process in said  
25 information processing method and a layout process in  
said printing apparatus.

5

comprising:

10

15

20

25

an intermediate data converting step of converting data formed by an application to be printed into data in an intermediate code format and temporarily preserving the intermediate code format data as one  
5 print job in a memory;

a job composing step of forming one composed job by composing a plurality of print jobs preserved in said intermediate data converting step; and

a preview display controlling step of obtaining  
10 layout information from the intermediate code format data preserved in said intermediate data converting step and controlling display of a preview of the composed job on the basis of the layout information.

15 18. A medium according to claim 17, wherein the program further comprises a setting editing program code for displaying a user interface to edit a print setting of the preserved intermediate code format data and temporarily preserving the print setting edited by  
20 the user interface in association with the intermediate code format data,

and wherein the layout information is included in the print setting.

25 19. A medium according to claim 18, wherein the user interface can edit the print setting for the composed job.

20. A medium according to claim 19, wherein the print setting has temporarily been preserved on a print job unit basis and, in case of the composed job, a file for the print setting is newly generated for the  
5 composed job.

21. A medium according to claim 17, wherein the layout information includes a layout process in said information processing apparatus and a layout process  
10 in said printing apparatus.

22. A medium according to claim 17, wherein the program further comprises a print data forming program code for forming the print data to be transmitted to  
15 said printing apparatus on the basis of the preserved intermediate code format data.

23. A medium according to claim 22, wherein the program further comprises:  
20 a draw command forming program code for converting the preserved intermediate code format data into a draw command which can be interpreted by a drawing unit of an OS and outputting; and  
a print command allocating program code for  
25 sending a print command received from the application through the drawing unit of the OS to said intermediate data converting program code and sending the print

command received from said draw command forming program code through the drawing unit of the OS to said print data forming program code.

5        24. A medium according to claim 23, wherein the draw command is a GDI function, the print command is a DDI function, and the print data is a printer language.

10        25. A computer-readable program for an information processing apparatus for forming print data to be transmitted to a printing apparatus, comprising:

an intermediate data converting step of converting data formed by an application to be printed into data in an intermediate code format and temporarily  
15        preserving the intermediate code format data as one print job in a memory;

a job composing step of forming one composed job by composing a plurality of print jobs preserved in said intermediate data converting step; and

20        a preview display controlling step of obtaining layout information from the intermediate code format data preserved in said intermediate data converting step and controlling display of a preview of the composed job on the basis of the layout information.

25

26. A program according to claim 25, further comprising a setting editing program code for



5

0

15

20

25

30. A program according to claim 25, further comprising a print data forming program code for forming the print data to be transmitted to said printing apparatus on the basis of the preserved

intermediate code format data.

31. A program according to claim 30, further comprising:

- 5           a draw command forming program code for converting the preserved intermediate code format data into a draw command which can be interpreted by a drawing unit of an OS and outputting; and
- 10           a print command allocating program code for sending a print command received from the application through the drawing unit of the OS to said intermediate data converting program code and sending the print command received from said draw command forming program code through the drawing unit of the OS to said print
- 15           data forming program code.

32. A program according to claim 31, wherein the draw command is a GDI function, the print command is a DDI function, and the print data is a printer language.